SCHNEIDER
STV3675

Service Manual

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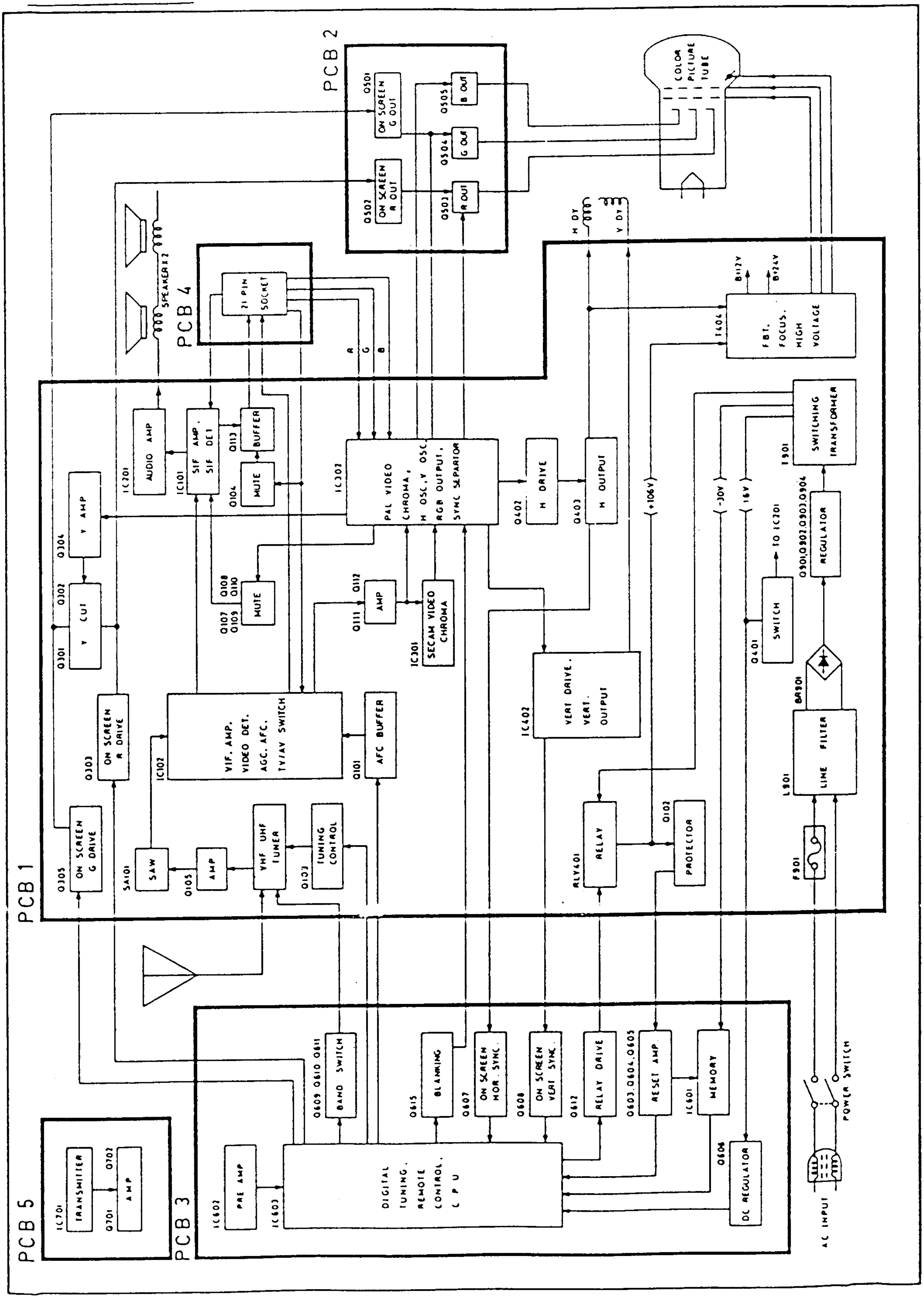
This manual is the latest at the time of printing, and does not include the modification which may be made after the printing, by the constant improvement of product.

SPECIFICATION

SYSTEM		:	PAL-B/G SECAM	
DESTINATION		:	W.GERMANY	
CHANNEL COVERAGE	VHF LOW	:	2 - S2	CH
	VHF HIGH	:	S3 - S20	CH
	UHF	:	21 - 69	CH
FREQUENCY RANGE	VHF LOW	:	47 - 118	MHz
	VHF HIGH	:	118 - 300	MHz
	UHF	:	470 - 862	MHz
SCANNING	LINES	:	625	LINES
	HORIZONTAL	:	15625	Hz
	VERTICAL	:	50	Hz
IF FREQUENCY	VIDEO	:	38.9	MHz
	SOUND	:	33.4	MHz
	CHROMA	:	34.47	MHz
VISION / SOUND SEPARATION		:	5.5	MHz
SENSITIVITY	VHF LOW	:	32	uV
	VHF HIGH	:	56	uV
	UHF	:	80	uV
OUTPUT POWER	MAXIMUM	:	1500	mW
	10 % THD	:	1000	mW
CRT		: .	21" (53.4 cm) Diagonal	
SPEAKER		:	2½" x 4 (8 Ohm 4W) x 2	
ANTENNA IMPEDANCE		:	75	Ohm
POWER CONSUMPTION		:	70	Watts

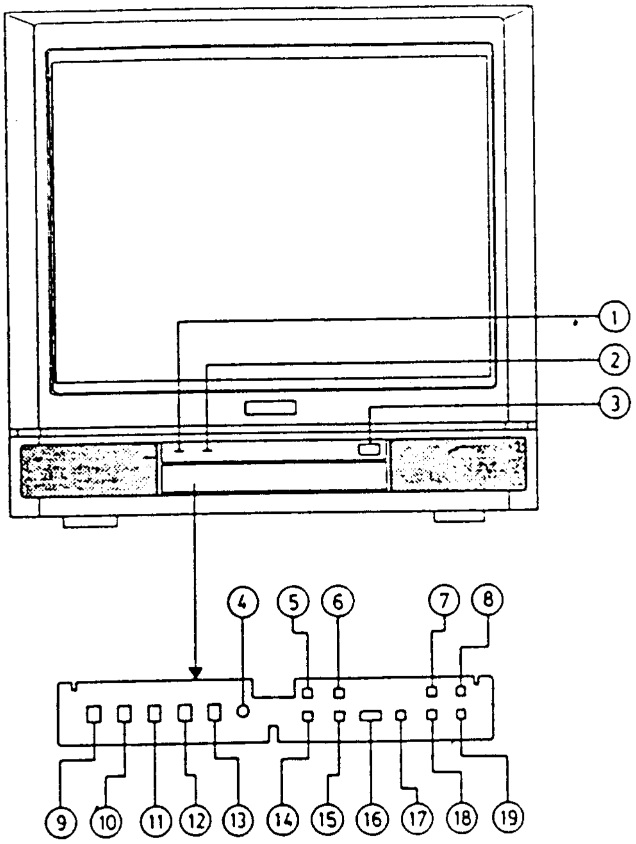
11 AUG

BLOCK DIAGRAM



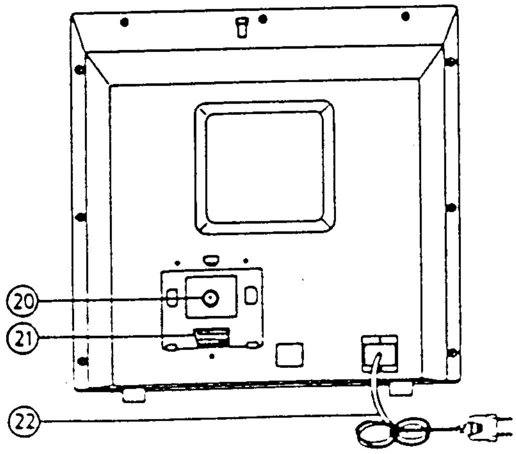
PCB 1
Q305 ON SCREEN G DRIVE
Q303 ON SCREEN R DRIVE
Q301 Y CUT Q302
Q304 Y AMP
SA101 SAW
Q105 AMP
VHF UHF TUNER
Q103 TUNING CONTROL
IC102 VIF. AMP. VIDEO DET. AGC. AFC. TV/AV SWITCH
Q101 AFC BUFFER
IC201 AUDIO AMP
IC101 SIF AMP. SIF DET
Q113 BUFFER
Q104 MUTE
Q107 Q109 MUTE Q108 Q110
Q111 AMP Q112
IC301 SECAM VIDEO CHROMA
IC302 PAL VIDEO CHROMA, H OSC, V OSC RGB OUTPUT, SYNC SEPARATOR
Q402 H DRIVE
Q403 H OUTPUT
IC402 VERT DRIVE. VERT. OUTPUT
(+106V)
(-30V)
(16V)
RLY401 RELAY
Q102 PROTECTOR
Q401 SWITCH
TO IC201
Q901,Q902,Q903,Q904 REGULATOR
T901 SWITCHING TRANSFORMER
BR901
L901 LINE FILTER
F901
T404 FBT. FOCUS, HIGH VOLTAGE
B112V
B124V
H DY
V DY
PCB 2
Q501 ON SCREEN G OUT
Q502 ON SCREEN R OUT
Q505 B OUT
Q504 G OUT
Q503 R OUT
COLOR PICTURE TUBE
PCB 4
21 PIN SOCKET
R
G
B
SPEAKER X 2
PCB 3
Q609 Q610 Q611 BAND SWITCH
Q615 BLANKING
Q607 ON SCREEN HOR. SYNC.
Q608 ON SCREEN VERT SYNC.
Q612 RELAY DRIVE
Q603,Q604,Q605 RESET AMP
IC601 MEMORY
IC602 PRE AMP
IC603 DIGITAL TUNING, REMOTE CONTROL, C P U
Q606 DC REGULATOR
PCB 5
IC701 TRANSMITTER
Q701 AMP Q702
AC INPUT
POWER SWITCH

CONTROL LOCATION :



1. Remote Sensor
2. Stand-By Indicator
3. Power Switch (ON / OFF)
4. V-Hold Control
5. TV / AV Button
6. Picture Function Button Up
7. Storage Button
8. Band Switch
9. Channel Down Control
10. Channel Up Control
11. Volume Down Control
12. Volume Up Control
13. Stand-By Control
14. Picture Selector Button (BRIGHT / CONTRAST / COLOR)
15. Picture Function Button Down
16. Preset Switch (ON / OFF)
17. Hi-Speed Button
18. Tuning Button (-)
19. Tuning Button (+)

20. Antenna Input Socket (75 Ohm)
21. 21 Pin Socket
22. AC Power Cord



ALIGNMENT INSTRUCTION

I. PLEASE READ BEFORE ATTEMPTING SERVICE

1. Do not connect any antenna plug directly to the tuner socket and do not connect any equipments directly to the TV chassis, otherwise it may be burnt out the TV or equipment, except an isolation transformer is used for main power source of the TV sets.
2. Never disconnect any leads while receiver is in operation.
3. Disconnect all power before attempting any repairs.
4. Do not short any portion of the circuits while power is on.
5. For reason of safety, all parts replaced should be identical, (For Parts and Parts Numbers see PARTS LIST).
6. Before alignment the set must be pre-heated for 30 minutes or more and erase magnetism thoroughly from CRT front chassis frame by erase coil.

II. TEST EQUIPMENT

1. VIF Sweep Generator
2. SIF Sweep Generator
3. Color Bar / Dot / Cross Hatch Generator
4. DC Power Supply (12V and 14V)
5. Oscilloscope
6. Vacuum Tube Volt Meter
7. Volt Ohm Meter
8. High Voltage Meter
9. Ampere Meter (0.5 Class, DC 3mA Max.)
10. Demagnetizing Coil
11. Philips Pattern Generator
12. Frequency Counter
13. Continuous Waveform Generator
14. 21 Pin Connector

III. TANK COIL ALIGNMENT (38.9 MHz)

A. PREPARATION STEP (SEE FIG.1)

1. Connect OUTPUT lead of VIF Sweep Generator between tuner test point TP and tuner case.
2. Connect lead of FROM DET between TP 103 and GND.
3. Supply DC +14V to ⊕ lead of D412.
4. Supply RF AGC bias voltage to TP 107. (See Fig.4)

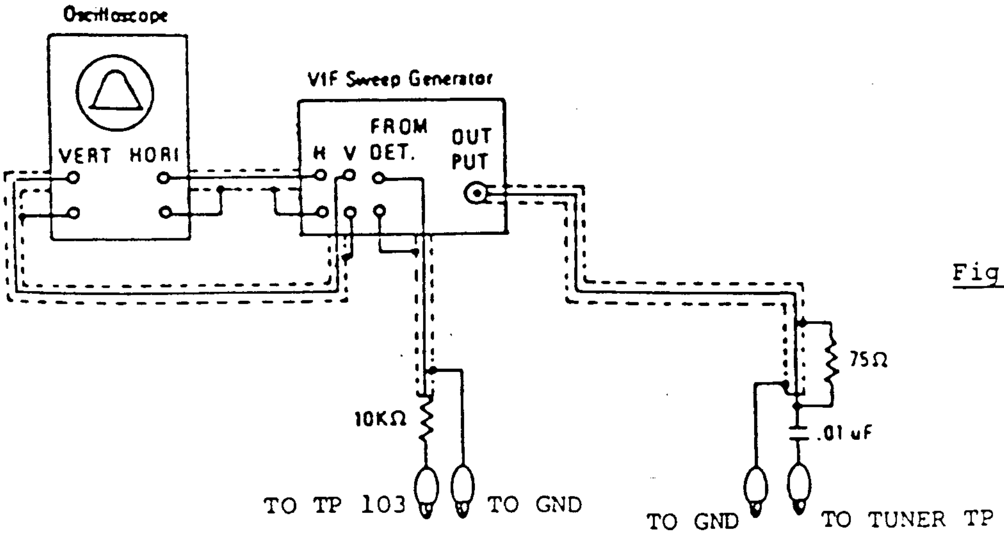


Fig.1

B. ALIGNMENT STEP (SEE FIG.2)

1. Adjust AGC bias voltage for maximum amplitude of waveform.
2. Increase the output level of Sweep Generator in 30 dBuV.
3. Adjust T104 to obtain response cause at 38.9 MHz. (See Fig.2)

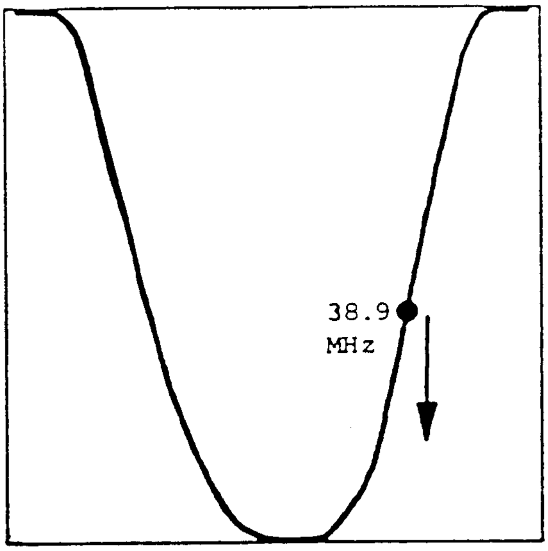


Fig.2

IV. VIF ALIGNMENT

A. PREPARATION STEP (SEE FIG.3)

1. Connect OUTPUT lead of VIF Sweep Generator between tuner test point TP and tuner case.
2. Connect resistor (100 Ohm) between TP 105 and TP 106.
3. Connect lead of FROM DET between TP 103 and GND.
4. Supply DC 14V to ⊕ lead of D412.
5. Supply RF AGC bias voltage to TP 107. (See Fig.4)

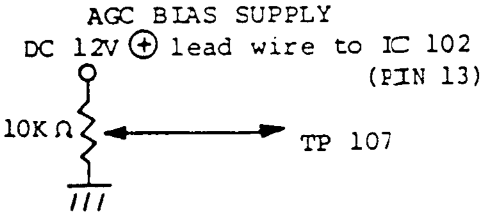

AGC BIAS SUPPLY
DC 12V ⊕ lead wire to IC 102
(PIN 13)
10K Ω
TP 107

Fig.4

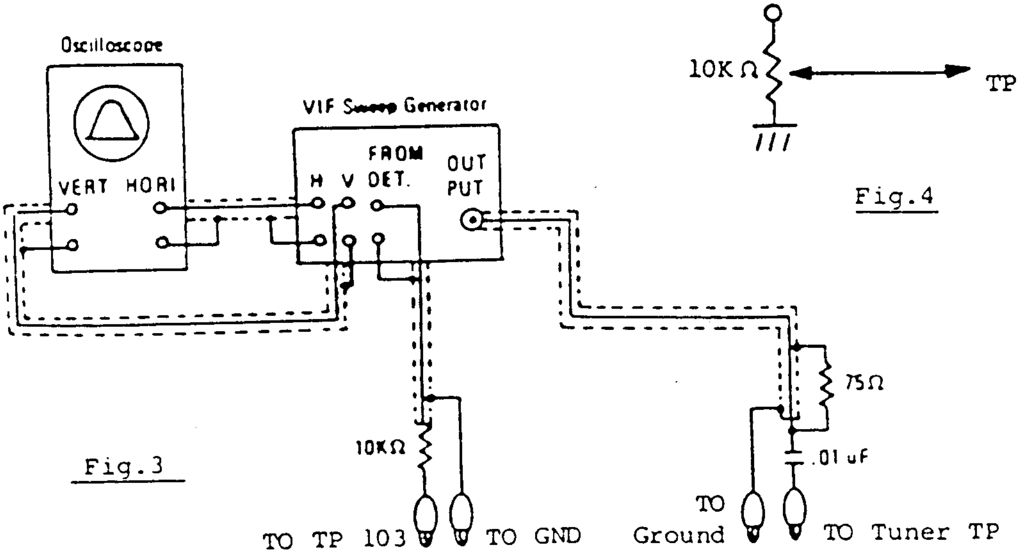

Oscilloscope
VERT
HORI
VIF Sweep Generator
H
V
FROM DET.
OUT PUT
10KΩ
75Ω
.01 uF
TO TP 103
TO GND
TO Ground
TO Tuner TP

Fig.3

B. ALIGNMENT STEP

1. Adjust AGC bias voltage for maximum amplitude of waveform.
2. Adjust the level of Sweep Generator to achieve 2Vp-p output.
3. Increase the output level of Sweep Generator in 30 dBuV.
4. Adjust AGC bias voltage to achieve 5Vp-p output (on Oscilloscope).
5. Adjust T101 and tuner converter coil as in Fig.5a.
6. Add 30 dB to adjust L101 to obtain the waveform as in Fig.5b.

REMARKS : Input signal should be around 55 - 60 dB.

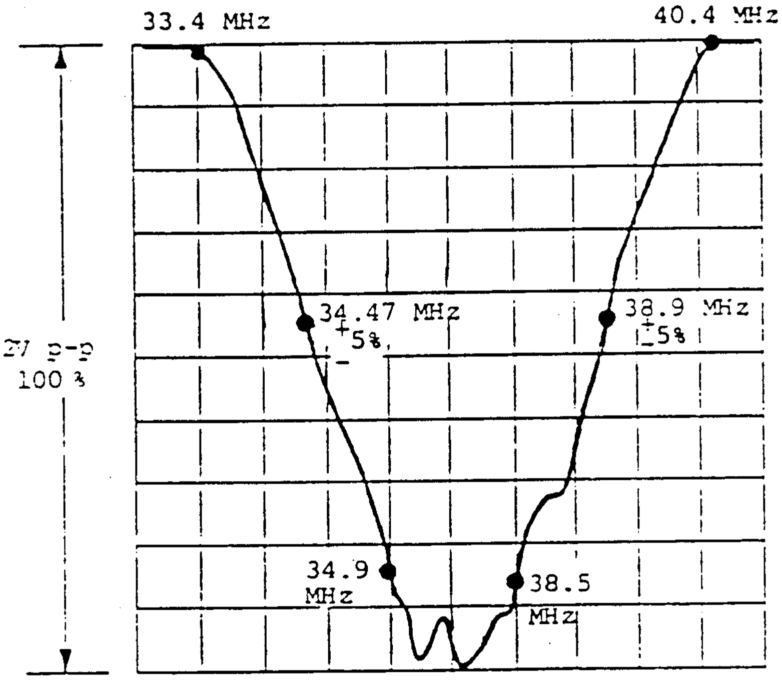


Fig.5a

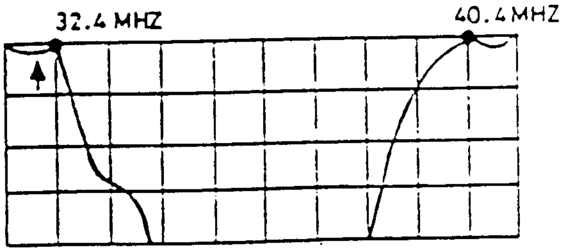


Fig.5b

V. AFC ALIGNMENT

A. PREPARATION STEP

1. Supply RF AGC bias voltage to TP 107.
2. Remove the damping resistor (100 Ohm) at TP 105, TP 106.
3. Connect output lead of Continuous Waveform Generator to tuner test point TP and tuner case.
4. Connect lead of FRCM DET between TP 104 and GND.
5. Supply DC 14V to ⊖ lead of D412.

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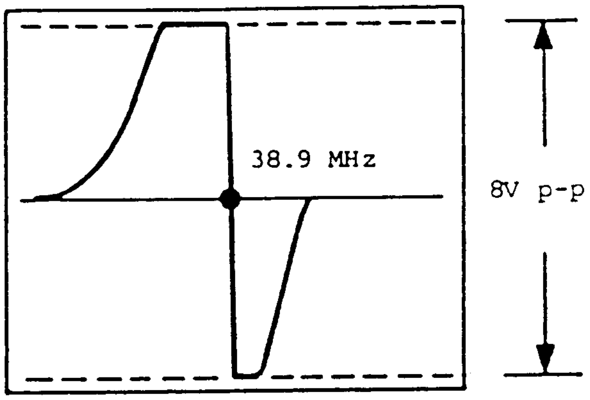
B. ALIGNMENT STEP

1. Adjust the output level of Sweep Generator in 30 - 40 dB.
2. Adjust AGC bias voltage to achieve 8Vp-p output (on Oscilloscope).
3. Adjust T101 make the picture carrier 38.9 MHz is centered as in Fig.6.
4. After AFC alignment to join the Soldering Pad of R134 and C112.

Fig.6



VI. PAL SIF ALIGNMENT

A. PREPARATION STEP (SEE FIG.7)

1. Connect output lead of SIF Sweep Generator between TP 103 and GND.
2. Connect lead of FROM DET between TP 109 and GND.
3. Supply DC +14V to ⊕ lead of D412.
4. Connect TP 107 to GND.
5. Connect connect TP 110 and TP 111.

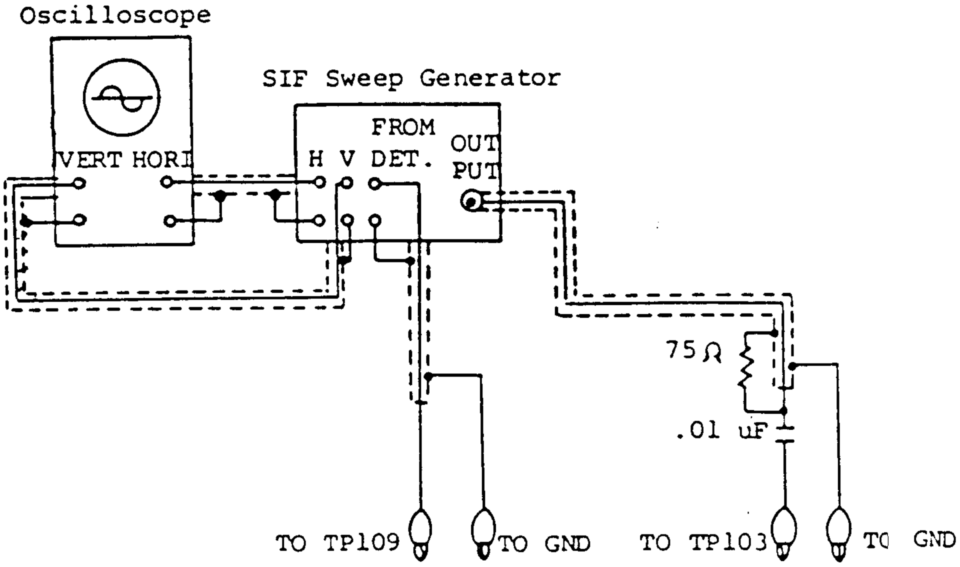

Oscilloscope
VERT
HORI
SIF Sweep Generator
H
V
FROM DET.
OUT PUT
75Ω
.01 uF
TO TP109
TO GND
TO TP103
TO GND

Fig.7

B. ALIGNMENT STEP

1. Adjust output of Sweep Generator to achieve 5Vp-p between markers of 100 KHz.
2. Adjust T102 so that sound carrier is centered as in Fig.8.
3. Confirm the waveform as in Fig.8.

NOTE : Input Level : 90 dB.

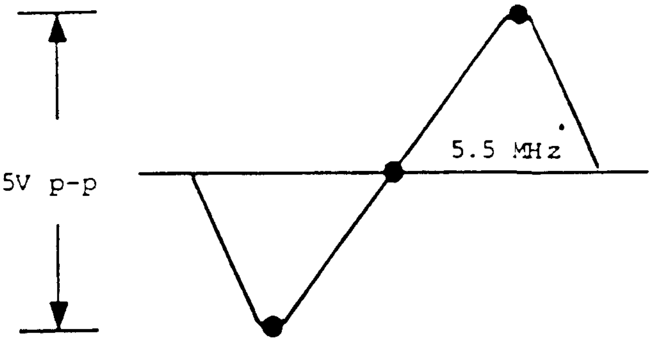
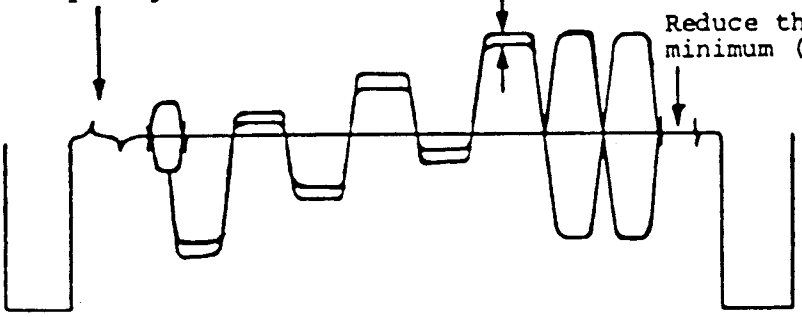


Fig.8

VIII. COLOR DEMODULATOR ALIGNMENT, DELAY LINE ALIGNMENT

1. Receive Philips Pattern.
2. Set CONTRAST control to minimum position.
3. Set COLOR control to maximum position.
4. Connect Oscilloscope to TP 304 (B-out).
5. Adjust CT 301 to obtain the waveform as in Fig.9.
6. Adjust VR306 to obtain the waveform as in Fig.9.
7. Adjust T303 to obtain the waveform as in Fig.9.



This line make it straight exactly (Adjust CT301)

Reduce the difference to minimum (Adjust T303)

Reduce the difference to minimum (Adjust VR306)

Fig. 9

IX. CHOCK FILTER ALIGNMENT (SEE FIG.10)

1. Connect Oscilloscope to TP 301.
2. Receive color bar signal.
3. Adjust T302 to obtain the waveform as same as Fig.10.

(JUST PUT A DOTTED LINE)

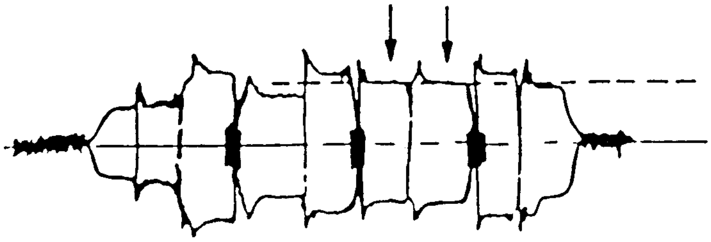


Fig.10

X. SECAM CHROMA ADJUST (SEE FIG.11)

1. Connect Oscilloscope to TP 306 and GND.
2. Receive SECAM dot signal.
3. Set VR305 to middle position.
4. Adjust T301 to obtain the waveform as in Fig.11.

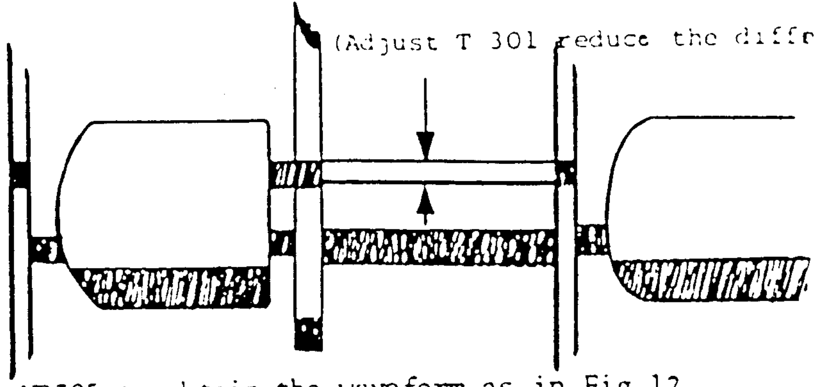

(Adjust T 301 reduce the difference to minimum)

Fig.11

6. Adjust VR305 to obtain the waveform as in Fig.12.

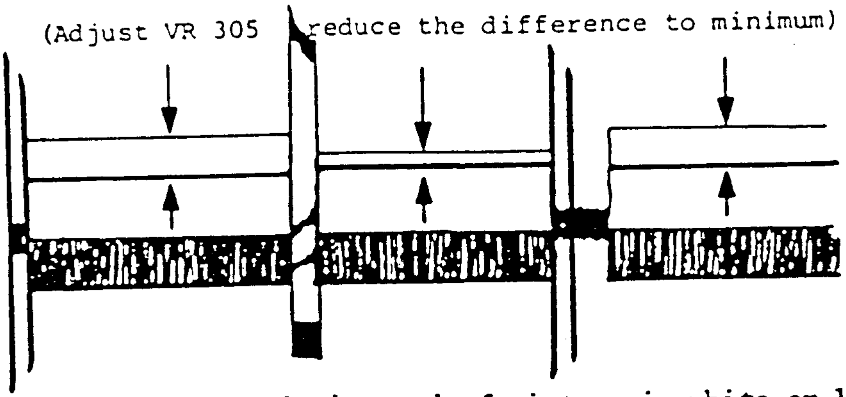

(Adjust VR 305 reduce the difference to minimum)

Fig.12

7. Fine tune T301 make the background of picture in white or little red color.

XI. B+ ADJUSTMENT

1. Connect the digital volt meter to TP 403.
2. Adjust semi-fixed resistor VR901 until meter reading DC 106.5V.

XII. HORIZONTAL CIRCUIT ADJUSTMENT

1. Receive Monoscope Pattern. Input signal 80 dBuV.
2. IC302 (PIN 28,29) short by 1K Ohm resistor.
3. Adjust VR302 to obtain the picture running at center.
4. Remove the 1K Ohm resistor.

XIII. VERTICAL CIRCUIT ADJUSTMENT

1. Receive the Monoscope Pattern.
2. Set V-HOLD (VR304) control to middle position.
3. Set the CHANNEL SELECTOR to no signal channel.
4. Connect the Frequency Counter between V-DEFLECTION YORK and GROUND.
5. Adjust SUB-V-HOLD (VR303) to the reading 50 Hz.
6. Receive Monoscope Pattern.
7. Adjust V-SIZE (VR401) control to obtain a normal picture.

XIV. WHITE BALANCE ADJUSTMENT

1. Receive a black and white picture signal.
2. Turn the red and blue LOW-LIGHT (VR501, VR502, VR504) controls to middle position, and turn the DRIVE (VR503, VR505) controls to middle position.
3. Turn the SCREEN control on the FBT to minimum position.
4. Set the SUB-BRIGHTNESS (VR301) control to middle position, then set the CONTRAST control and COLOR control to minimum position.
5. Set the SERVICE switch (S301) to 'SERVICE' position.
6. Connect volt meter between (R508) and ground, and adjust BRIGHTNESS control to the reading of DC 135V. If DC 135V can not be obtain, adjust the SUB-BRIGHTNESS control (VR301).
7. Slowly turn the SCREEN control clockwise to the point where a horizontal line just illuminates.
8. Adjust VR501 to get a red horizontal line on CRT.
9. Adjust VR502 to get a yellow horizontal line on CRT.
10. Adjust VR504 to get a white horizontal line on CRT.
11. Reset the SERVICE switch (S301) to 'NORMAL' position and turn BRIGHTNESS control to middle position.
12. Adjust DRIVE (VR503, VR505) controls to obtain a uniform white picture.

XV. FOCUS ADJUSTMENT

1. Set CONTRAST control to maximum position and BRIGHTNESS control to middle position.
2. Adjust FOCUS control (on the FBT) to obtain a sharpest and clearest picture on the CRT.

XVI. RF AGC ALIGNMENT

1. Receive the signal of BAND-III (VHF HIGH) channel, and set the AFC switch to 'ON' position.
2. Set the input field strength in 62 ± 3 dB.
3. Adjust RF AGC (VR101) control to the point where noise is disappeared.

XVII. SUB-BRIGHTNESS ALIGNMENT

1. Connect the negative side of DC ampere meter (3mA full scale range) to TP 402 and TP 401 to ground.
2. Receive Monoscope Pattern.
3. Set controls as follow :

BRIGHTNESS	control	Min. Position
CONTRAST	control	Min. Position
COLOR	control	Min. Position

4. Adjust SUB-BRIGHTNESS control VR301 to read the DC ampere meter at 120 uA.

XVIII. COLOR PURITY ADJUSTMENT (SEE FIG.13)

1. BEFORE ALL ADJUSTMENT DESCRIBED BELOW ARE ATTEMPTED, V-HOLD, H-HOLD, V-HIGH, B+ VOLTAGE AND FOCUSING ADJUSTMENT MUST BE COMPLETED.

1. Place the TV receiver facing NORTH or SOUTH.
2. Plug in TV receiver and turn it on.
3. Operate the TV receiver over 30 minutes.
4. Fully degauss the TV receiver by using an external degaussing coil.
5. Receive a crosshatch pattern and adjust the static convergence control roughly.
6. Loosen the clamp screw of the deflection yoke and pull the deflection yoke towards you.

7. Fully turn the red and blue DRIVE (VR503, VR505) controls counter-clockwise.
8. Adjust the purity magnets so that green field is obtained at the center of of the screen.
9. Slowly push the deflection yoke towards bell of CRT and set it where a uniform green field is obtained.
10. Tighteen the clamp screw of the deflection yoke.

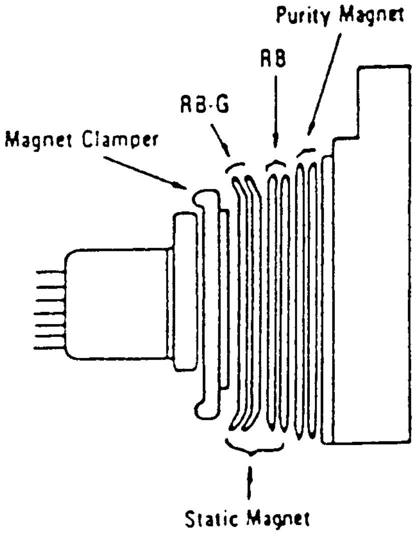
XIX. ON SCREEN ADJUSTMENT

1. Receive the Monoscope Pattern.
2. Adjust on screen (VR602) for adjust the lettering to center of CRT. .

XX. CONVERGENCE ADJUSTMENT (SEE FIG.13)

1. Receive a dotted pattern.
2. Unfix the convergence magnet clamper and align red with blue dots at the center of the screen by rotating (R,B) static convergence magnets.
3. Align Red / Blue with green dots at the center of the screen by rotating (RB-G) static convergence magnet.
4. Fix the convergence magnets by turning the clamper.
5. Remove the DY wedges and slightly tilt the deflection yoke horizontally and vertically to obtain the good overall convergence.
6. Fix the deflection yoke by wedges.
7. If purity error is found, follow 'PURITY ADJUSTMENT' instructions.

Fig.13



VOLTAGE TABLE FOR TRANSISTOR

SYMBOL	B (V)	C (V)	E (V)	SYMBOL	B (V)	C (V)	E (V)
Q101	0.20	2.90	GND	Q501	2.16	109	3.12
Q102	0.12	6.11	GND	Q502	2.16	107	3.12
Q103	0.21	11.70	GND	Q503	4.11	107	3.59
Q104	0.02	3.28	GND	Q504	3.98	109	3.47
Q105	1.03	7.78	0.29	Q505	3.95	87.60	3.42
Q107	0.11	11.30	GND	Q603	4.87	0	4.76
Q108	0.68	0.10	GND	Q604	0.87	4.76	GND
Q109	0.65	0.53	GND	Q605	0.76	0.01	GND
Q110	0.15	0.65	GND	Q606	6.10	14.00	5.40
Q111	2.40	10.40	1.78	Q607	0.27	4.20	GND
Q112	5.81	11.80	5.15	Q608	0.05	4.47	GND
Q113	2.28	11.00	1.64	Q609	10.10	10.80	10.90
Q301	0.07	0.72	GND	Q610	11.20	0.03	0.40
Q302	0.72	0.02	GND	Q611	10.90	0.01	10.80
Q303	0.06	3.17	GND	Q612	0.68	0.07	GND
Q304	0.02	11.80	GND	Q615	0.09	8.43	GND
Q305	0.06	1.97	GND	Q901	8.90	12.50	8.25
Q401	15.00	16.10	14.40	Q902	0.24	0.28	1.91
Q402	0.35	74.40	GND	Q903	0.01	1.28	GND
Q403	0.60	40.10	GND	Q904	-2.30	257	0.05

NOTE : Voltage are taken under tuned condition with

CONTRAST : Maximum Position
BRIGHTNESS : Center Position
COLOR : Center Position
SIGNAL INPUT : 80 dBuV
CHANNEL SETTING : The Last Channel of VHF High

VOLTAGE TABLE FOR IC

SYMBOL PIN NO.	IC101 (V)	IC102 (V)	IC201 (V)	IC301 (V)
1	0.96	2.66	0.63	GND
2	0.98	5.17	0.55	4.25
3	10.90	GND	0	4.25
4	5.17	6.36	GND	4.25
5	0.99	4.40	7.27	5.16
6	10.80	4.39	14.30	2.76
7	1.33	4.39	14.10	10.46
8	5.84	4.40	8.83	0.77
9	1.57	0.67		9.79
10	4.68	3.60		0.72
11	10.80	2.66		1.37
12	3.79	3.14		2.94
13	0.04	11.00		0.68
14	2.28	2.45		2.94
15	4.80	6.16		9.71
16	2.67	0.70		0.35
17	5.84	2.92		9.03
18	4.21	7.21		11.70
19	4.21	7.22		4.20
20	GND	2.92		4.31
21		10.90		0.31
22		2.57		11.60
23		0.04		1.42
24		2.66		4.58
25				8.39
26				8.85
27				8.31
28				8.31

NOTE : Voltage are taken under tuned condition with

CONTRAST : Maximum Position
BRIGHTNESS : Center Position
COLOR : Center Position
SIGNAL INPUT : 80 dBuV
CHANNEL SETTING : The Last Channel of VHF High

VOLTAGE TABLE FOR IC

PIN NO. \ SYMBOL	IC302 (V)	IC402 (V)	IC601 (V)	IC602 (V)	IC603 (V)
1	GND	GND	0.08	2.12	GND
2	2.79	10.10	GND	4.68	2.37
3	3.33	25.50	0.08	0.06	3.56
4	5.11	0.76	NC	NC	4.46
5	1.93	0.19	NC	GND	4.46
6	2.37	0.51	NC	GND	0.62
7	6.75	25.10	NC	2.14	3.91
8	9.81		4.78	2.15	4.74
9	9.78		-32.50	5.25	4.61
10	5.20		-11.27	1.35	4.36
11	3.01		0		4.36
12	4.43		NC		4.37
13	3.00		NC		4.39
14	0		NC		4.50
15	5.29		0.08		4.50
16	5.29		0.08		4.51
17	3.90				0.17
18	2.95				0.09
19	9.32				0.08
20	9.35				0.08
21	3.98				0.08
22	0.51				NC
23	0.44				0.03
24	3.95				0.03
25	0.51				2.25
26	9.35				0.32
27	3.20				0.01
28	8.35				NC
29	10.80				NC
30	7.85				0.07
31	0.76				1.38
32	3.82				1.32
33	1.47				1.81
34	0.61				1.24
35	4.62				2.71
36	1.42				1.62
37	0.90				10.90
38	4.92				10.80
39	4.75				0.01
40	4.75				2.38
41	2.04				2.31
42	8.73				4.74

NOTE : Voltage are taken under tuned condition with

CONTRAST	:	Maximum Position
BRIGHTNESS	:	Center Position
COLOR	:	Center Position
SIGNAL INPUT	:	80 dBuV
CHANNEL SETTING	:	The Last Channel of VHF High

VOLTAGE TABLE FOR IC

SYMBOL / PIN NO.	IC302 (V)	IC402 (V)	IC601 (V)	IC602 (V)	IC603 (V)
1	GND	GND	0.08	2.12	GND
2	2.79	10.10	GND	4.68	2.37
3	3.33	25.50	0.08	0.06	3.56
4	5.11	0.76	NC	NC	4.46
5	1.93	0.19	NC	GND	4.46
6	2.37	0.51	NC	GND	0.62
7	6.75	25.10	NC	2.14	3.91
8	9.81		4.78	2.15	4.74
9	9.78		-32.50	5.25	4.61
10	5.20		-11.27	1.35	4.36
11	3.01		0		4.36
12	4.43		NC		4.37
13	3.00		NC		4.39
14	0		NC		4.50
15	5.29		0.08		4.50
16	5.29		0.08		4.51
17	3.90				0.17
18	2.95				0.09
19	9.32				0.08
20	9.35				0.08
21	3.98				0.08
22	0.51				NC
23	0.44				0.03
24	3.95				0.03
25	0.51				2.25
26	9.35				0.32
27	3.20				0.01
28	8.35				NC
29	10.80				NC
30	7.85				0.07
31	0.76				1.38
32	3.82				1.32
33	1.47				1.81
34	0.61				1.24
35	4.62				2.71
36	1.42				1.62
37	0.90				10.90
38	4.92				10.80
39	4.75				0.01
40	4.75				2.38
41	2.04				2.31
42	8.73				4.74

NOTE : Voltage are taken under tuned condition with

CONTRAST	:	Maximum Position
BRIGHTNESS	:	Center Position
COLOR	:	Center Position
SIGNAL INPUT	:	80 dBuV
CHANNEL SETTING	:	The Last Channel of VHF High

TRANSISTOR AND IC IDENTIFY

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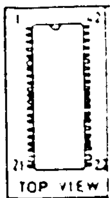
<td>

1
24
21
22
TOP VIEW

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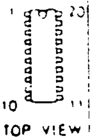
<td>MN 15245
AN 5601K</td>
<td>

1
20
10
11
TOP VIEW

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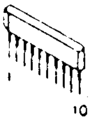
<td> </td>
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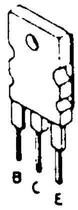
<td> </td>
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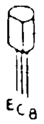
<td> </td>
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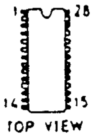
<td>

1
28
14
15
TOP VIEW

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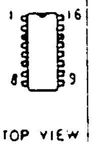
<td>

1
16
8
9
TOP VIEW

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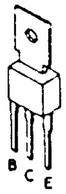
TDA 1904</td>
<td rowspan="2"> </td>
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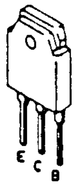
<td rowspan="2"> </td>
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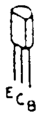
<td> </td>
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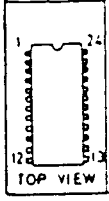
<td>

1
24
12
13
TOP VIEW

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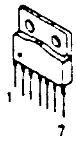
<td>TDA 2549</td>
<td> </td>
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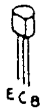
<td> </td>
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2SB 774T
2SC 388A
2SC 1815Y</td>
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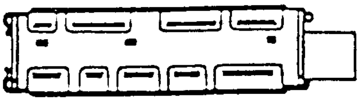
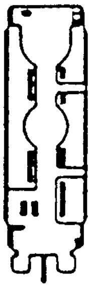
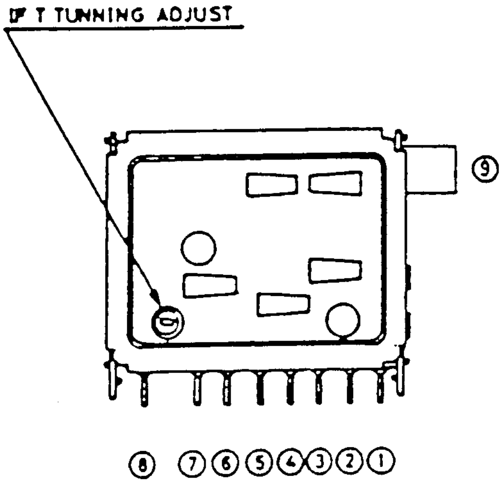
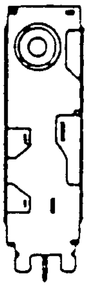
PICTORIAL VIEW OF TUNER

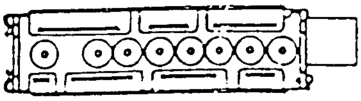




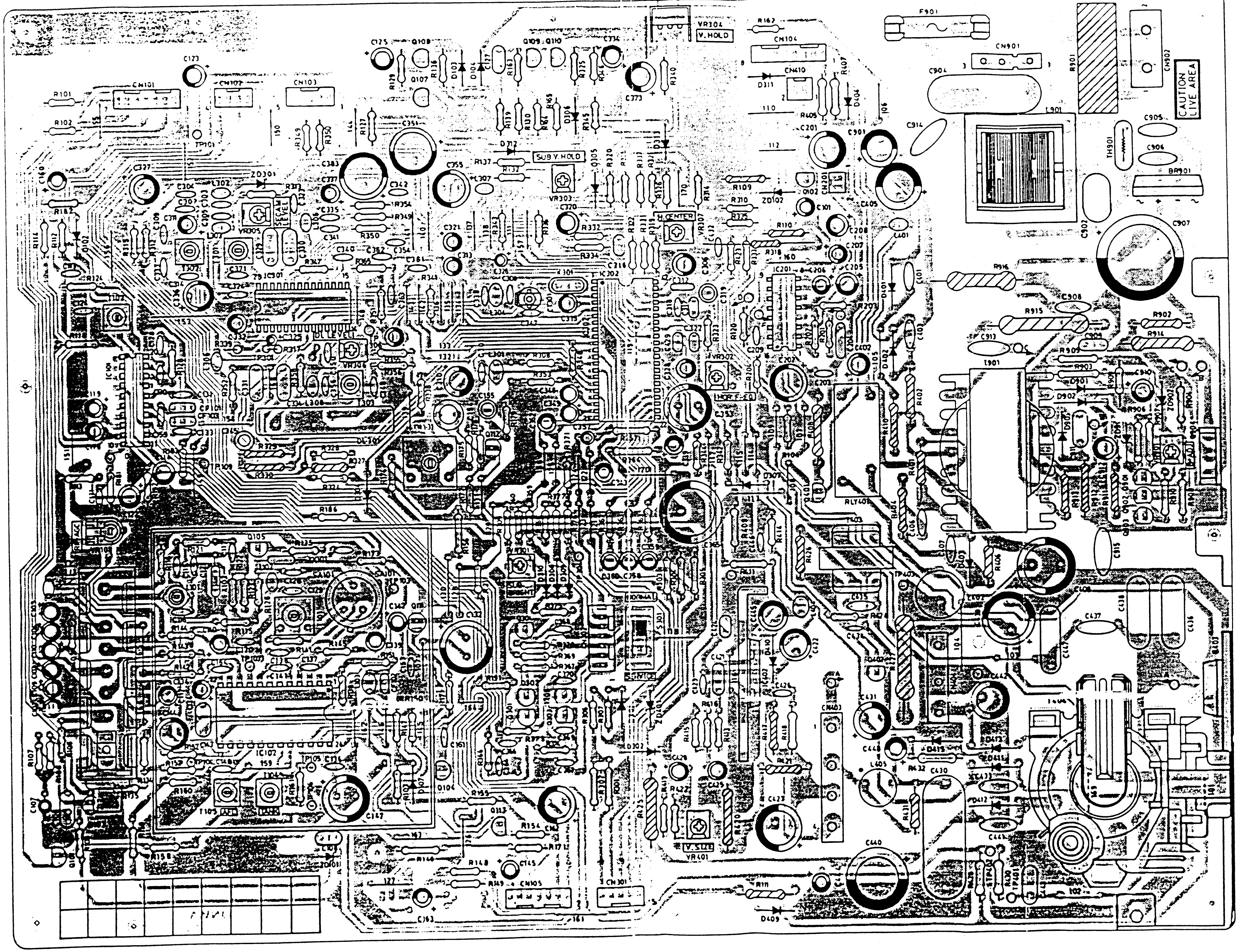

IFT TUNNING ADJUST
⑨
⑧
⑦
⑥
⑤
④
③
②
①



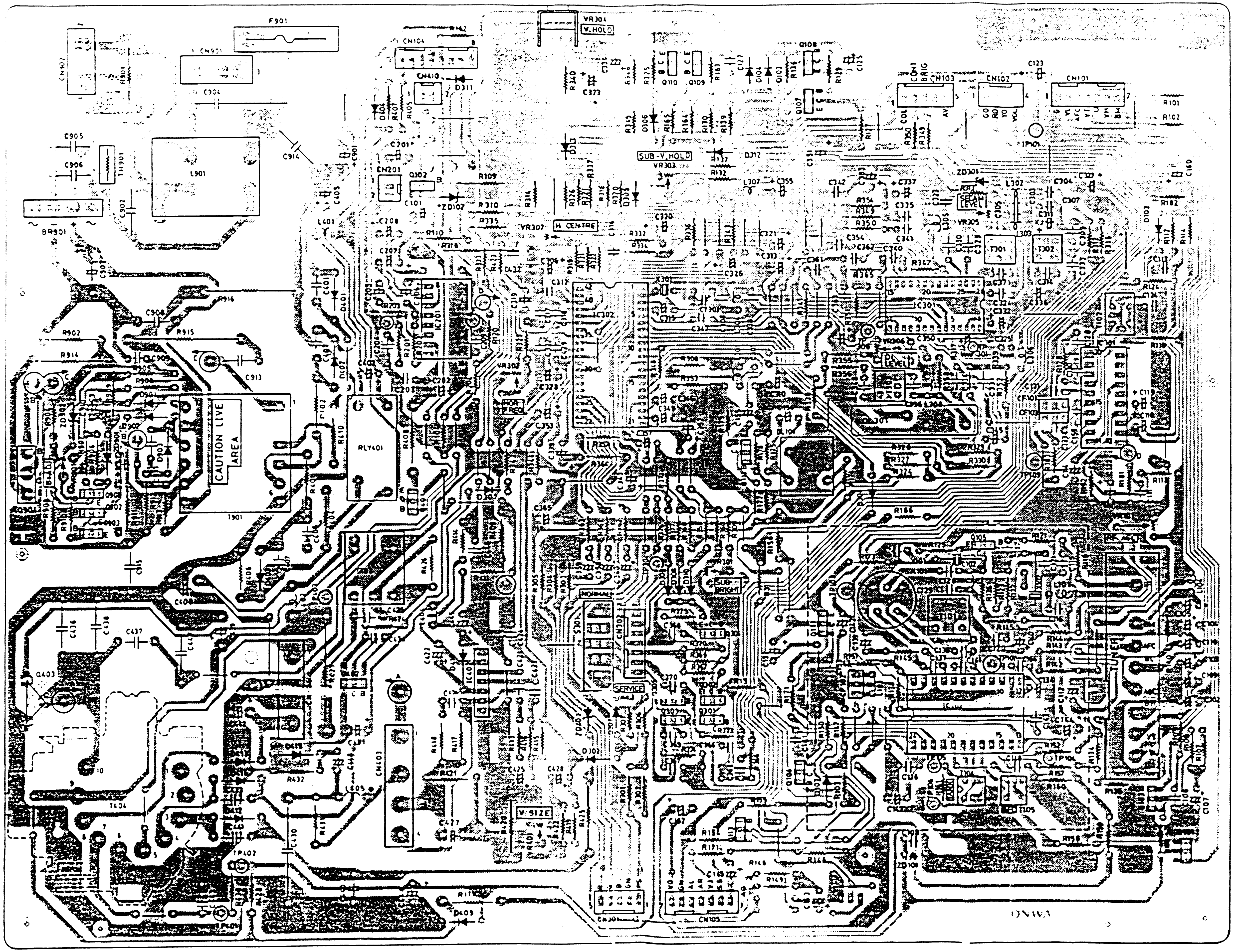
Terminal No	1	2	3	4	5	6	7	8	9
Terminal name	BU	VT	BH	AGC	BL	AFT	BM	IF	V/U ANT



COMPONENT DIAGRAM OF MAIN BOARD (TOP VIEW)

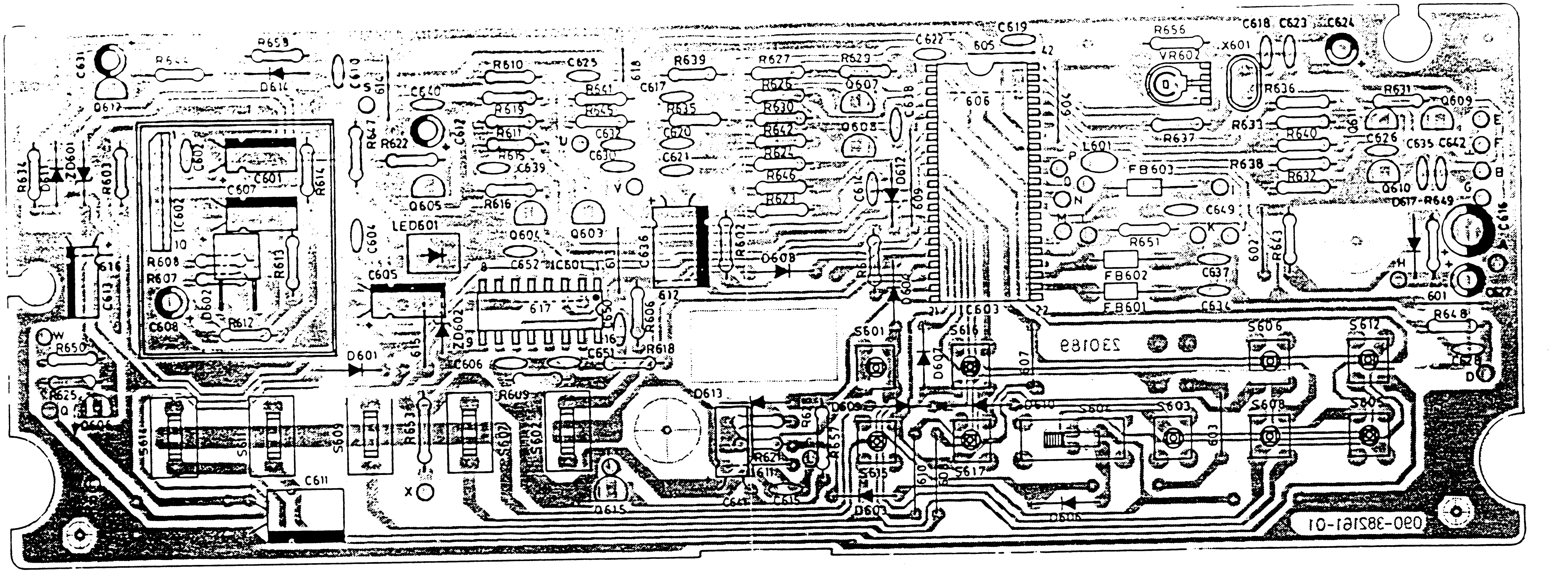

CAUTION LIVE AREA
F901
CN901
CN902
R901
C904
L901
C905
C906
TH901
BR901
C907
T901
VR304
V. HOLD
R162
CN104
CN410
D311
R407
D104
SUB V. HOLD
VR303
H. CENTER
VR301
HOR F-Q
VR302
V. SIZE
VR401
RLY401
IC101
IC102
IC201
IC302
IC301
CN101
CN102
CN103
CN105
CN301
CN403
R101
R102
C127
C125
Q108
Q107
Q109
Q110
C773
C351
C355
C383
C327
ZD301
VR305
VR306
C201
C901
C914
C405
R916
R915
C908
R902
R914
C913
R903
D901
D902
C915
C437
C438
C440
D409
R111
C163
C147
T105
T104
C107
R107
R158
R160
D412
D413
D414
C430
C431
C442
C443
C444

COMPONENT DIAGRAM OF MAIN BOARD (BOTTOM VIEW)


F901
CN901
CN902
C904
C905
C906
L901
TH901
BR901
C914
CN104
CN410
D311
CN201
Q102
ZD102
C208
L401
VR304
V.HOLD
SUB-V.HOLD
VR303
H CENTRE
VR307
Q108
Q110
Q109
CN103
CN102
CN101
C123
R101
R102
TP101
ZD301
L302
T301
T302
IC301
CAUTION LIVE AREA
T901
RLY401
R902
R914
R915
R916
C908
C909
C913
Q403
T404
C436
C437
C438
TP402
D409
D413
R432
L405
CN401
C427
IC401
V-SIZE
NORMAL
SERVICE
CN104
CN105
R186
Q105
T104
T105
R160
R158
ZD109
IC101
CF101
X301
VR302
VR306
VR205

COMPONENT DIAGRAM OF CHANNEL BOARD

(TOP VIEW)


090-382161-01
230189
IC601
IC602
IC603
LED601
VR602
X601
L601
FB601
FB602
FB603
S601
S602
S603
S604
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S606
S607
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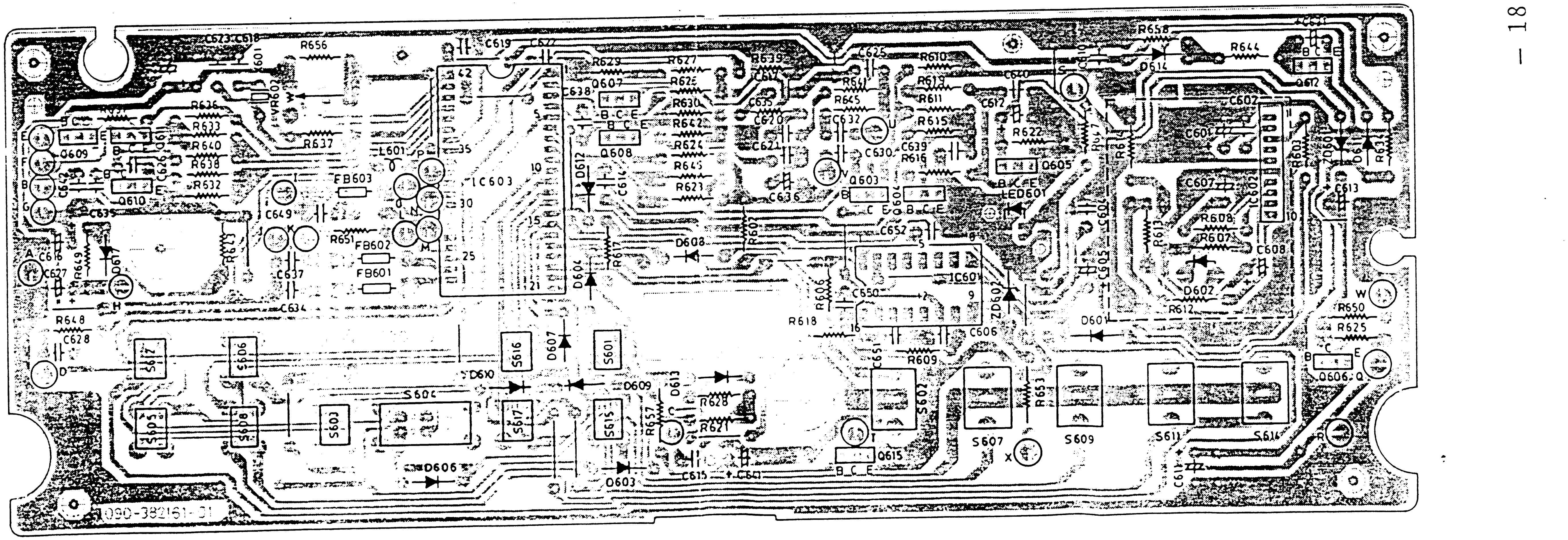
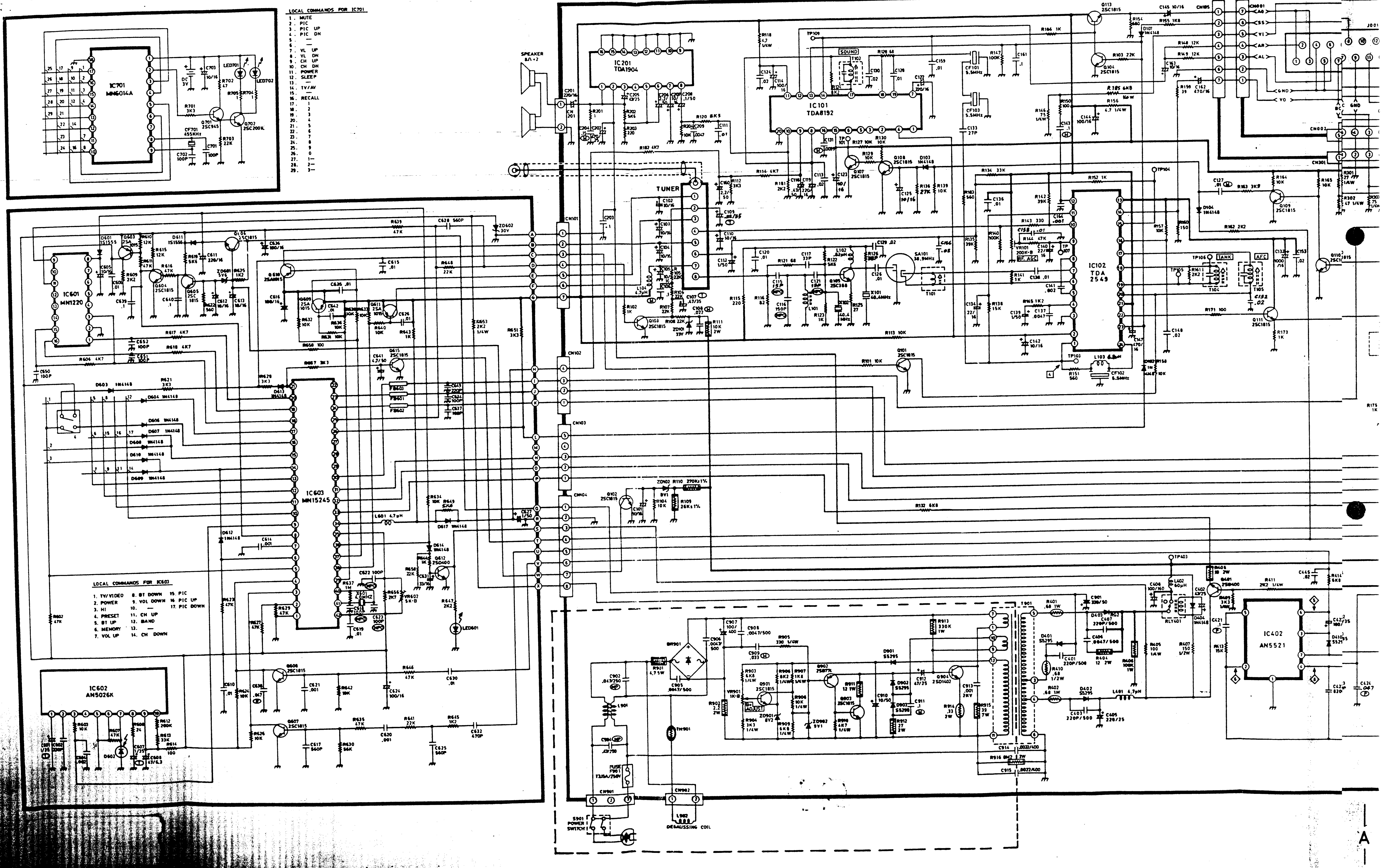
S609
S611
S612
S614
S615
S616
S617

(BOTTOM VIEW)


090-382161-01
IC601
IC602
IC603
LED601
VR602
L601
FB601
FB602
FB603
S601
S602
S603
S604
S605
S606
S607
S608
S609
S611
S614
S615
S616
S617

SCHEMATIC DIAGRAM FOR PAL-SECAM-B/G SYSTEM

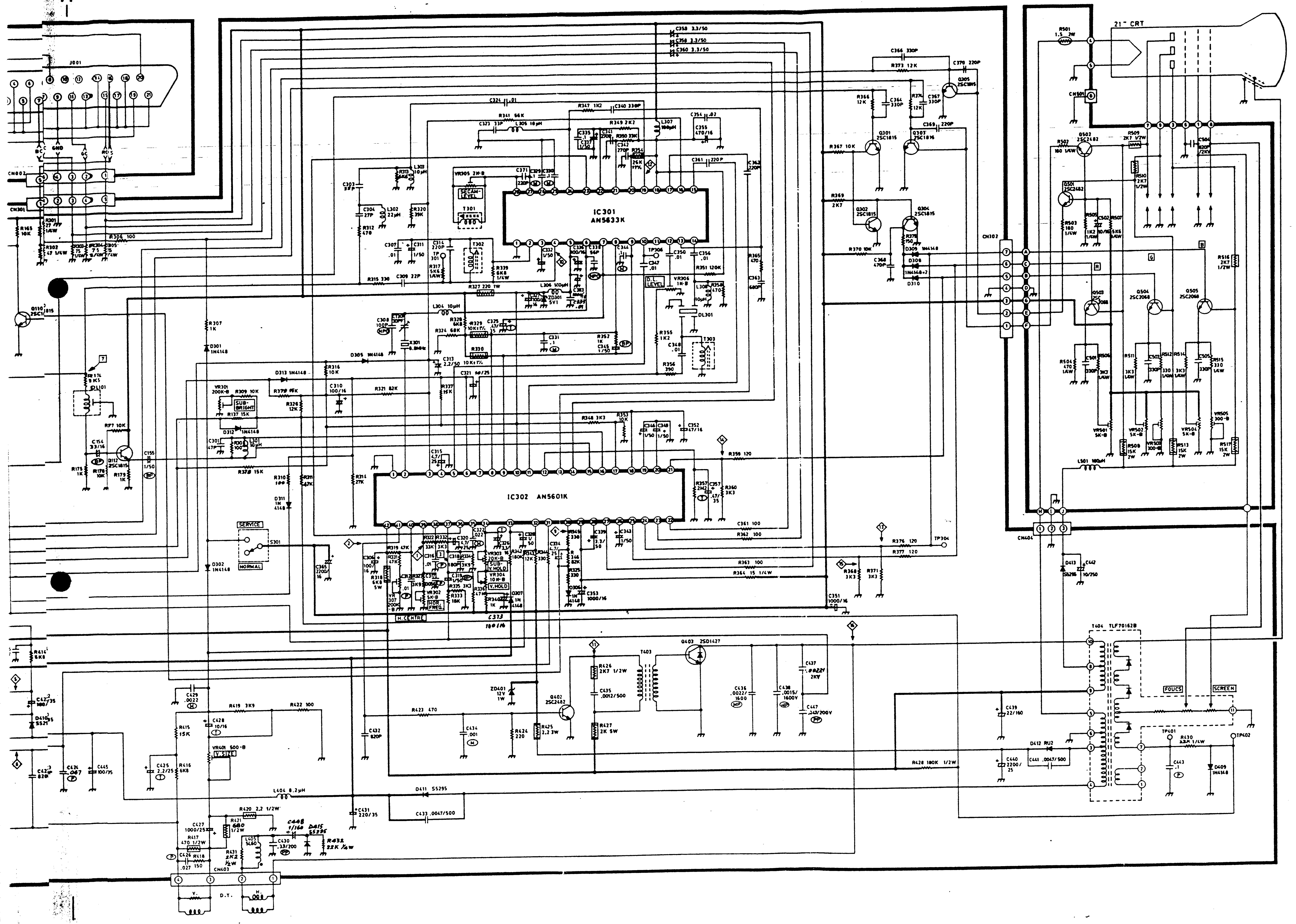

IC701
MN6014A
LED701
LED702
Q701
2SC945
Q702
2SC200L
CF701
455KHz
IC601
MN1220
IC603
MN15245
IC602
AN5026K
LED601
SPEAKER
8Ω ×2
IC201
TDA1904
TUNER
SOUND
IC101
TDA8192
SA101
38.9MHz
X101
4.43MHz
IC102
TDA
2549
TANK
AFC
RF. AGC
TP103
TP104
TP106
TP107
TP109
TP403
CF101
5.5MHz
CF103
5.5MHz
CF102
6.5MHz
T101
T102
T104
T105
CN101
CN102
CN103
CN104
CN105
CN001
CN002
CN301
J001
GND
VO
IC402
AN5521
RLY401
T901
BR901
TH901
FUSE
F901
T3.15A/250V
CN901
CN902
S901
POWER
SWITCH
L902
DEGAUSSING COIL
ADJUST
A

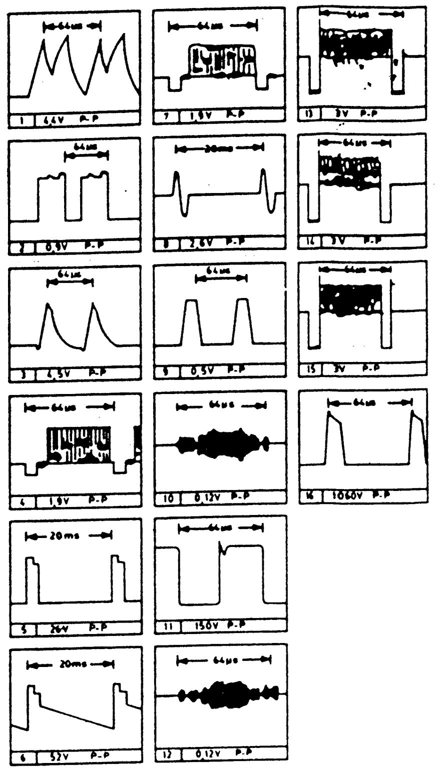
LOCAL COMMANDS FOR IC701

1. MUTE
2. PIC
3. PIC UP
4. PIC DN
5. —
6. —
7. VL UP
8. VL DN
9. CH UP
10. CH DN
11. POWER
12. SLEEP
13. —
14. TV/AV
15. —
16. RECALL
17. 1
18. 2
19. 3
20. 4
21. 5
22. 6
23. 7
24. 8
25. 9
26. 0
27. 1—
28. 2—
29. 3—

LOCAL COMMANDS FOR IC603

1. TV/VIDEO
2. POWER
3. HI
4. PRESET
5. BT UP
6. MEMORY
7. VOL UP
8. BT DOWN
9. VOL DOWN
10. —
11. CH UP
12. BAND
13. —
14. CH DOWN
15. PIC
16. PIC UP
17. PIC DOWN


A
J001
CN002
CN301
IC301
AN5633K
IC302
AN5601K
SECAM LEVEL
T301
T302
T303
DL301
D.L. LEVEL
VR305 2K-B
VR306 1K-B
X301 8.8MHz
SUB-BRIGHT
SERVICE
NORMAL
S301
H. CENTRE
SUB-V.HOLD
V.HOLD
HOR. FREQ.
V. SIZE
VR401 500-B
T403
Q403 2SD1427
Q402 2SC2482
ZD401 12V 1W
L404 8.2µH
D411 SS295
CN403
D.T.
Y.
H.
CN302
CN404
CN501
21" CRT
Q501 2SC2482
Q502 2SC2482
Q503 2SC2068
Q504 2SC2068
Q505 2SC2068
Q301 2SC1815
Q302 2SC1815
Q303 2SC1815
Q304 2SC1815
Q305 2SC1815
Q110 2SC1815
Q112 2SC1815
L101
T404 TLF70162B
FOUCS
SCREEN
TP401
TP402
TP304
TP306
D412 RU2
D409 1N4148
D413 SS216
L501 180µH
R501 1.5 2W
R
G
B



NOTE :

(1) ALL CAPACITORS ARE IN µF UNLESS OTHERWISE NOTED.
ALL CAPACITORS ARE 50wv UNLESS OTHERWISE NOTED.

(2) CAPACITOR NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITORS.
- a) ELECTROLYTIC CAPACITOR.
- b) BI-POLAR ELECTROLYTIC CAPACITOR.
- c) Ⓣ TANTALUM CAPACITOR.
- d) Ⓟ METALLIZED POLYESTER.
- e) Ⓟ POLYESTER FILM CAPACITOR.
- f) Ⓟ POLYPROPYLENE CAPACITOR.
- g) Ⓜ MYLAR CAPACITOR.

(3) ALL RESISTORS ARE IN OHM 1/16 WATT UNLESS OTHERWISE NOTED.

(4) RESISTOR NOT SPECIFICALLY DESIGNATED ARE CARBON FILM RESISTORS.
- a) NONFLAMMBLE RESISTOR.
- b) FUSEBLE RESISTOR.
- c) CEMENT RESISTOR.
- d) METAL OXIDE RESISTOR.
- e) THERMISTOR.

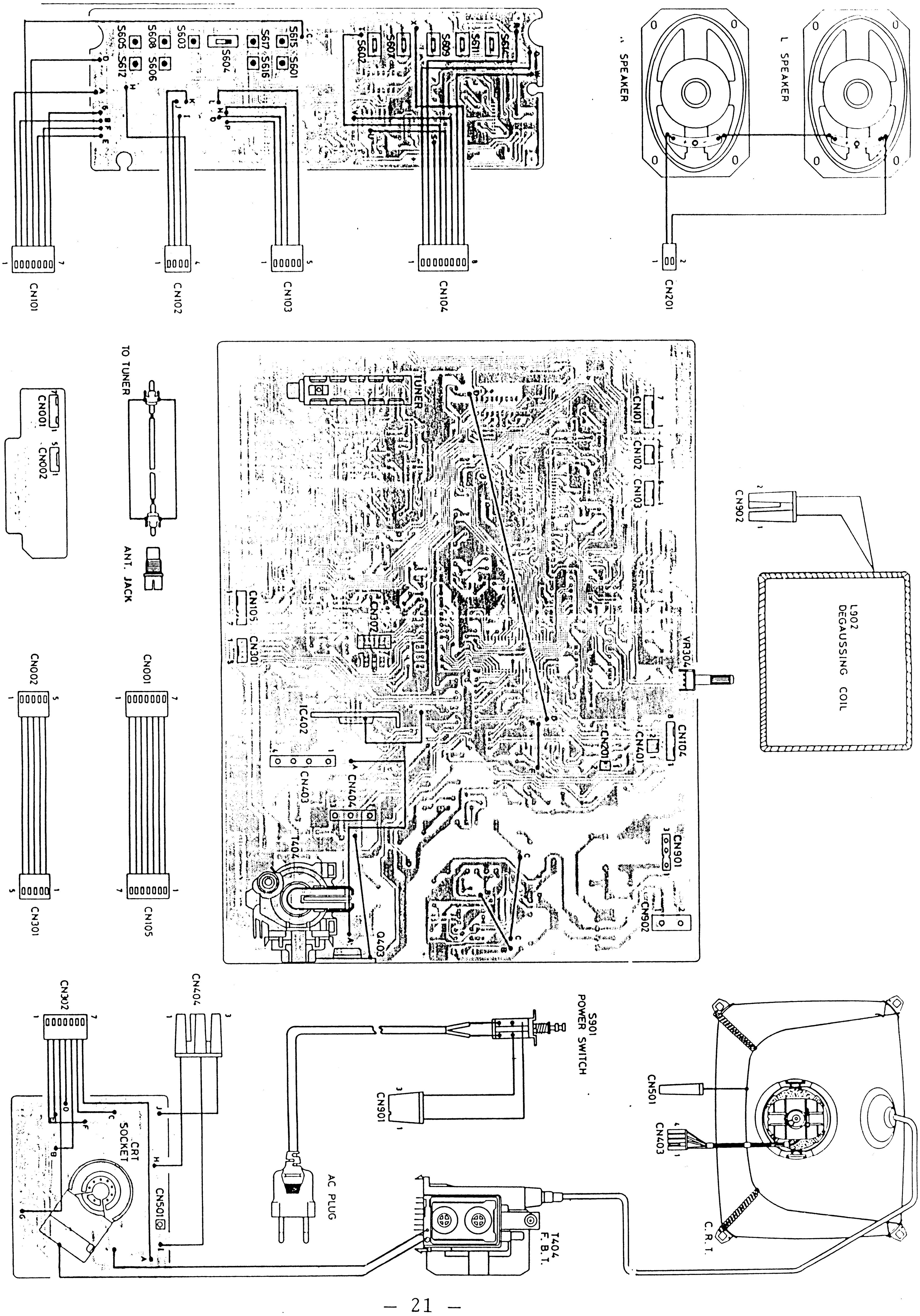
(5) DC VOLTAGE ARE MEASURED FROM POINTS INDICATED TO THE CIRCUIT GROUND WITH A DIGITAL MULTIMETER TEST.

(6) WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONDITIONS (COLOR PHILIPS PATTERN).

(7) THIS CIRCUIT DIAGRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

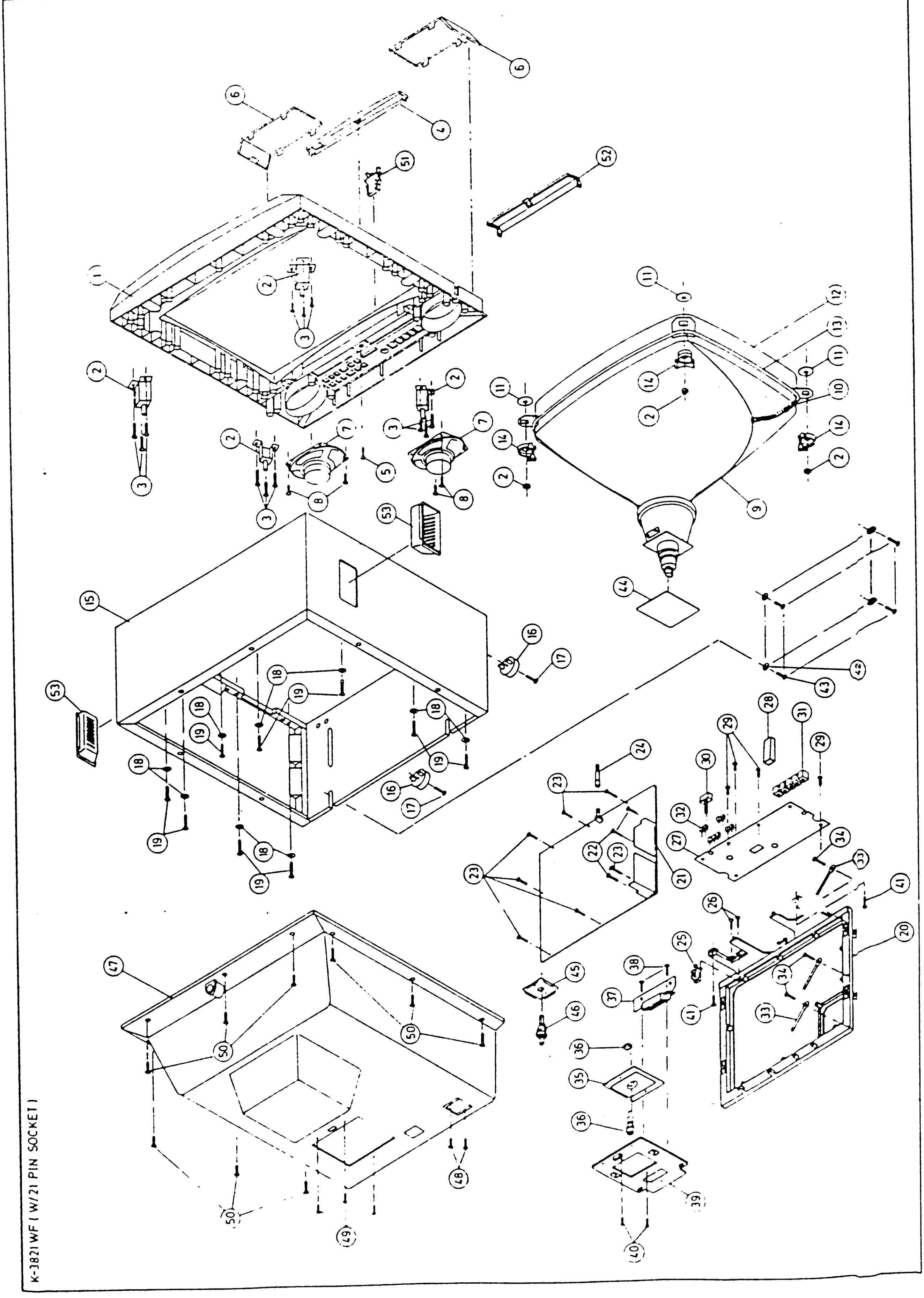
KONG WAH VIDEO ENGINEERING LTD.		
TITLE: SCHEMATIC DIAGRAM		
MODEL: K-3821	SYSTEM:PAL-SECAM-B/G	
DRAW NO: 3821-02	COUNTRY	
DATE: 27-12-88	REV.NO: C(30-8-89)	
DRAWN:	CHECKED:	APPRO

WIRING DIAGRAM



S605
S612
S608
S606
S603
S604
S617
S616
S615
S601
S602
S607
S609
S611
S614
SPEAKER
L SPEAKER
CN101
CN102
CN103
CN104
CN201
CN001
CN002
TO TUNER
ANT. JACK
TUNER
CN105
CN301
CN302
IC402
CN403
CN404
T404
Q403
CN901
CN902
CN201
CN401
CN104
VR304
L902
DEGAUSSING COIL
CN902
CN001
CN105
CN002
CN301
CN302
CN404
CRT SOCKET
CN501
S901
POWER SWITCH
CN901
AC PLUG
T404
F.B.T.
CN501
CN403
C.R.T.

EXPLODED VIEW DIAGRAM


K-3821 WF (W/21 PIN SOCKET)
6
6
4
51
52
1
2
3
11
12
13
11
10
14
2
14
2
11
14
2
2
3
2
3
7
5
2
3
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8
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44
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50
50
48
50
49

EXPLODED VIEW DIAGRAM FOR PARTS LIST :

LOCATION	PARTS NO.	DESCRIPTION	QTY
1	200-382101-02	CABINET FRONT	1
2	428-382101-01	C.R.T. MTG. BRACKET	4
3	614-400225-10	SELF-TAPPING SCREW B/T 4.0 x 25 mm	12
4	263-382101-01	FRONT LENS	1
5	610-300110-10	SELF-TAPPING SCREW R/T 3.0 x 10 mm	1
6	403-382101-01	SPEAKER GRILL	2
7		SPEAKER	2
8	614-400412-10	SELF-TAPPING SCREW B/T 4.0 x 12 mm	4
9		FLAT BRAIDED WIRE	1
10	477-371601-01	C.R.T. SPRING	2
11	334-371601-01	RUBBER WASHER	4
12		C.R.T.	1
13		DEGAUSSING COIL ASS'Y	1
14	229-382101-01	C.R.T. MTG CLIP	4
15	503-382101-02	WOOD SIDE CABINET (3 FACES PANEL)	1
	504-382102-01	WOOD BOTTOM BOARD	1
	509-382101-01	WOOD TRIANGLE STRIPS	4
16	207-371801-01	CABINET FOOT	2
17	614-350218-10	SELF-TAPPING SCREW S.B/T 3.5 x 18 mm	2
18	634-133042-15	PLANE WASHER 13.3 DIA x 4.2 x 1.5 mm THK	9
19	614-400225-10	SELF-TAPPING SCREW B/T 4.0 x 25 mm	9
20	220-382102-01	CHASSIS BRACKET	1
21		MAIN P.C. BOARD ASS'Y	1
22	610-300112-10	SELF-TAPPING SCREW R/T 3.0 x 12 mm	3
23	612-300110-10	SELF-TAPPING SCREW W/T 3.0 x 10 mm	7
24	292-372001-01	TV CONTROL KNOB	1
25		POWER SWITCH	1

EXPLODED VIEW DIAGRAM FOR PARTS LIST :

LOCATION	PARTS NO.	DESCRIPTION	QTY
26	600-305006-10	MACHINE SCREW P/H 3.0 x 6 mm	2
27		CHANNEL P.C. BOARD ASS'Y	1
28	259-382101-01	L.E.D. HOLDER	1
29	612-300110-10	SELF-TAPPING SCREW W/T 3.0 x 10 mm	4
30	292-382101-01	POWER KNOB	1
31	277-382101-01	CHANNEL / VOLUME KNOB	5
32	292-371406-01	PRESET KNOB	9
33	451-701201-01	WIRE DRESS	3
34	612-300108-10	SELF-TAPPING SCREW W/T 3.0 x 8 mm	3
35	280-371602-01	JACK PLATE 'B'	1
36	061-480006-00	ANTENNA SOCKET	1
37		21 PIN SOCKET P.C. BOARD ASS'Y	1
38	610-300110-10	SELF-TAPPING SCREW R/T 3.0 x 10 mm	2
39	236-372001-01	BACK PANEL	1
40	611-300312-00	SELF-TAPPING SCREW K/T 3.0 x 12 mm	2
41	614-400414-10	SELF-TAPPING SCREW B/T 4.0 x 14 mm	2
42	634-133042-15	PLANE WASHER 13.3 DIA x 4.2 x 1.5 mm THK	1
43	614-400412-10	SELF-TAPPING SCREW B/T 4.0 x 12 mm	4
44		C.R.T. P.C. BOARD ASS'Y	1
45	428-372002-01	BRACKET FOR AC LINE CORD	1
46	650-000003-00	AC LINE CORD BUSHING	1
47	202-372001-01	BACK CABINET	1
48	600-305008-00	MACHINE SCREW P/H 3.0 x 8 mm	2
49	601-305010-00	MACHINE SCREW K/H 3.0 x 10 mm	3
50	614-350218-10	SELF-TAPPING SCREW S.B/T 3.5 x 18 mm	9
51	047-210000-00	DOOR SWITCH	1
52	219-382101-01	PANEL DOOR	1
53	259-371801-01	HANDLE	2